

AP STATISTICS GUIDED NOTES CH. 7

7.1 Sampling Distributions

Read 416–417

What is a parameter? What is a statistic? How is one related to the other?

Alternate Example: Identify the population, the parameter, the sample, and the statistic in each of the following: (a) A pediatrician wants to know the 75th percentile for the distribution of heights of 10-year-old boys, so she takes a sample of 50 patients and calculates $Q_3 = 56$ inches.

(b) A Pew Research Center Poll asked 1102 12- to 17-year-olds in the United States if they have a cell phone. Of the respondents, 71% said “Yes.”

Read 417–420 (*including activity and example*)

What is sampling variability?

What is a sampling distribution?

What is the difference between the distribution of the population, the distribution of the sample, and the sampling distribution of a sample statistic?

Read 421–428

What is an unbiased estimator? What is a biased estimator? Provide some examples.

How can you reduce the variability of a statistic?

What effect does the size of the population have on the variability of a statistic?

What is the difference between accuracy and precision? How does this relate to bias and variability

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